

the color to the glandular bodies. The reservoir also is lined with cells. In *Upis Pennsylvanica* they are brownish, or nearly colorless, measure the 1-750th inch in diameter, contain some finely granular brownish matter, and a large round or oval, translucent, faintly granular nucleus, measuring 1-1250th inch, with a large, round or oval nucleolus 1-2727th inch in diameter.

The secretion of the glands of *Julus marginatus* contained within the interior of the body, is deep yellow in color, and contains a few of the purplish granules of the cells. It resembles oil in consistence, but is soluble in water and alcohol. It is neither acid nor alkaline, evaporates at a temperature of 250° F., without residue; is acrid to the tongue; Schneiderian membrane, and conjunctiva, smells like iodohydric acid, and stains the cuticle brown. The last two properties led me to suspect the existence of iodine, but the usual reagents presented none. It probably belongs to a class of peculiar organic compounds, found in the odoriferous principles of animals, not yet investigated.

Exteriorly the reservoirs of the odoriferous glands of insects are furnished with transverse muscular bands, of a brownish color, about 1-1578th inch in breadth, and separated by wide intervals.

In *Julus*, the body of the glands possesses no distinct muscular bands, but the neck is provided with them.

References to the plate.

Fig. 1. Represents one of the odoriferous glands of *Julus marginatus*, much magnified, exhibiting the secreting cells on the interior surface of the body, and the muscular bands of the neck.

Fig. 2. Represents some of the secreting cells, highly magnified. *a*, cells in which the nucleus is concealed from the quantity of granular matter; *b*, nucleus; *c*, cells in outline.

Fig. 3. Three secreting cells very highly magnified. *a*, nucleus concealed by granular contents; *b*, a cell burst with a portion of the contents escaping.

October 30th.

DR. BRIDGES in the Chair.

The Committee on Mr. Cassin's descriptions of new species of *Caprimulgidæ*, reported in favor of publication in the Proceedings.

Descriptions of new species of birds of the Family Caprimulgidæ, specimens of which are in the Collection of the Academy of Natural Sciences of Philadelphia.

By JOHN CASSIN.

Genus *HYDROPSALIS*, *Wagler*, *Isis*, 1832, page 1222.

1. *Hydropsalis limbatu*s, nobis.

Adult ♂ ? *Form.* Wings long, pointed, with the shafts of the primaries strong and slightly curved; first primary longest, second and third deeply sinuated on their outer webs, and, with the first, having their external margins distinctly serrated. Tail excessively long, graduated, the two external feathers surpassing the next by about 14 inches; others regularly receding to the two in the middle, which are shortest. Tarsi feathered slightly below the knee. Webs of outer tail feathers narrow.

Dimensions.—Total length of skin, from the tip of bill to end of tail about 2 feet 5 inches, of the wing 9 inches, of the tail to end of external feathers, about 22 inches; length of two middle tail feathers about 3 inches.

Colors.—Upper surface of the head, body and wing coverts brownish black, spotted and sparingly lined with pale fulvous. The wing coverts with round spots at their points of the same color.

Superciliary region grayish white, every feather having narrow irregular lines of black. Hind neck with a semicollar of bright and reddish fulvous. Under the eye an irregular whitish stripe.

Scapular feathers with their external webs black, with a few curved lines of fulvous remote from the tip, which is broadly margined with black, internal webs of scapulars nearly white irregularly striped and spotted with black; other scapulars nearly black, with pale fulvous margins externally.

Throat before with a white collar. Chin, breast and belly irregularly mixed with brownish black and pale yellowish white, the latter color assuming upon the breast the form of semicircular segments and lunular spots upon the tips of the feathers, and the former (blackish) disposed to form very irregular narrow bands upon the flanks and belly; ventral region and under tail coverts paler.

Quills brownish black, having upon their internal webs four or five narrow transverse lines of pale yellowish white, conspicuous when viewed from below; and upon their external webs (except the first) several rounded or irregular shaped spots of the same color. Second and third quills were sinuated upon their outer webs, with a very slight margin of white. Secondaries obscurely tipped with whitish.

First, second and third tail feathers throughout their whole length with their outer webs and about two-thirds of their inner webs brownish black,—other portion of the inner webs, being the internal margin of those feathers, white; a few bright fulvous spots near the base upon the outer webs. Fourth and fifth tail feathers with similar colors, but more broadly bordered with white, which upon those, as well as the third, is sparingly spotted with brownish.

Young ♀? *Form.*—Tail deeply emarginate, but not excessively long, external feathers exceeding the next by about $1\frac{1}{2}$ inches only.

Dimensions.—Total length of skin, from tip of bill to end of tail about 12 inches, wing 8 inches, tail to end of external feathers $7\frac{1}{2}$ inches; length of middle tail feathers about $3\frac{1}{2}$ inches.

Colors.—Entire upper surface, tail included, brownish black, with numerous rounded spots and lines of reddish fulvous, assuming upon the tail the form of irregular or curved bands, which are more or less mottled and mixed with the brownish black of the other predominating portion. Throat with a semi-collar of yellowish white. Entire under parts, brownish-black, banded and spotted with fulvous.

Hab.—South America.

Obs.—This very remarkable species may readily be distinguished by its very long forked tail, the feathers of which are irregularly graduated. In the latter respect it differs from the *Hyd. psalurus*, (Temm.) to which, however, it bears but little resemblance.

There are in the collection of the Academy three specimens of this species, two males in the Rivoli collection, and a female which was fortunately procured in Paris by Mr. Edward Wilson.

2. *Hydropsalis segmentatus* nobis.

♂ middle age? *Form.* Wings moderate, second primary slightly longest second, third and fourth deeply sinuated on their outer webs; first with its outer edges serrated, inner edges (of primaries) presenting a fringed appearance. Shafts of primary quills strong and curved.

Tail very long, the two external feathers of which surpass the next by about 10 to 12 inches; second, third and fourth graduated; fourth and fifth about equal—that is to say, the four middle feathers of the tail nearly equal.

Bill rather long and slender. Tarsi bare, slender. Webs of outer tail feathers very narrow.

Dimensions.—Total length of skin from tip of bill to end of tail about 20 inches, wing $6\frac{3}{4}$, tail to end of external feathers about $15\frac{1}{2}$ inches; length of four middle tail feathers about 4 inches.

Colors.—Upper surface of head, body, scapulars and wing coverts brownish-black, spotted and obscurely lined with ferruginous rufous, which color almost predominates upon the scapulars.

Neck, behind, with an obscure ferruginous semi-collar, before, with a semi-collar of rufous white. Body beneath, brownish black, with rounded ferruginous spots upon the breast, and upon the belly with obscure bands and spots of pale ferruginous and nearly white.

Wing feathers brownish-black; first primary with a narrow pale reddish border upon its outer web for about half its length, second and third with a pale ferruginous spot at the point of sinuation. Secondaries with irregular bars of reddish and with narrow tips of the same color.

The two external feathers of the tail with their shafts white upon the upper surface, outer webs white, tinged with rufous, and handsomely marked (upon the outer webs) with semicircular segments of black, having for their bases the shaft of the feather. This marking is more conspicuous towards the base, and upon the under surface the black color of these semicircular segments extends to the shaft of the feather. All the other tail feathers brownish black, with bars of ferruginous rufous; upon the two middle feathers these bars are mottled with black.

Young ♀? *Form.*—Tail ample, emarginate, and regularly graduated, the two external feathers being but little longer than the second.

Dimensions.—Total length of skin, from tip of skin to end of tail about 9 inches; wing $6\frac{1}{4}$; tail to end of external feathers, about 5 inches; length of middle feathers of the tail, about 4 inches.

Colors.—Entire plumage very similar to the male, but with all the tail feathers brownish black, barred with ferruginous.

Hab. Bogata, New Grenada.

Obs. The two specimens now described belong to the Rivoli collection, and have the appearance of being either young birds, or with the plumage of winter. The male may, however, be easily recognized by the curious marks upon the external webs of the outer tail feathers, described above. The colors in the present specimens, black and ferruginous, are peculiar to this species, so far as I have seen.

GENUS ANTROSTOMUS, Gould.

3. *Antrostomus serico-caudatis*, nobis.

Adult ♂. *Form.* Wings rather long, third primary longest; second, third

and fourth sinuated on their outer webs; shafts slightly curved. Tail cuneiform, four middle feathers equal and longest.

Bill rather long and flat; tarsi short, slightly feathered below the knee,

Dimensions. Total length of skin, from tip of bill to end of tail, about 11 inches; wing $7\frac{1}{4}$; tail $5\frac{3}{4}$ inches.

Colors. Head above, back, rump, scapulars and wing coverts variegated with black and dark fulvous, the latter in rounded spots and narrow irregular lines, predominating upon the wing coverts, but the former (black) upon the head and scapulars. This color disposed to form a broad longitudinal band on the head. Sides of the head, over the eyes, grayish; every feather with transverse black lines. Neck behind with a semi-collar of deep reddish fulvous; before, with a semi-collar of yellowish white, the feathers of which are tipped with black.

Throat nearly black, breast below the collar, with deep fulvous spots and irregular lines, belly and ventral region with a predominating pale fulvous white, and some nearly pure white spots, every feather transversely lined and barred with black, under tail coverts fulvous, unspotted.

Wing feathers brownish black, primaries with about 10 to 12 irregular shaped but rather triangular marks of deep fulvous upon their external webs, secondaries with irregular bars of pale fulvous, which bars are mottled with black.

First, second and third feathers of the tail brownish black with several obscure and badly defined bands of reddish fulvous, and obliquely tipped in a very conspicuous manner, with fine, silky white. Fourth feather of similar color, and without the white tip, and with the reddish fulvous bands more definite. Two middle tail feathers brownish black, and with about 10 to 12 bars on each web of deep reddish fulvous, well defined, and which are disposed obliquely from the shafts of the feathers, like a pinnate leaf, those bars broad and mottled with black,—two middle feathers without white tips.

Younger? *Form.* As above described, but with the second primary slightly the longest.

Dimensions. Total length of skin from tip of bill to the end of tail, about $10\frac{1}{2}$ inches, wing $7\frac{1}{4}$, tail $5\frac{1}{2}$ inches.

Colors. Very similar to the above, but with the grayish color extending over the whole of the head. Under parts much darker but with more numerous white rounded spots. Under tail coverts fulvous with black lines. The fine white tips of the external tail feathers tinged with fulvous.

Hab. South America.

Obs. The distribution of the colors upon the upper surface of the body, in this handsome species resembles in some degree that of *Scolopax rusticola*, or of *S. minor*.

It is not similar to any other species known to me, and can at once be recognized by the silky white tips of the external tail feathers. These cross the feathers obliquely, and are so arranged that when the cuneiform tail is expanded, they form a contiguous margin upon the ends of those three feathers.

This is one of the few species of this family which have pretensions to beauty. Two specimens are in the collection of the Academy.

ELECTION.

Octavius A. Norris, and Francis W. Lewis, M. D., of Philadelphia, were elected *Members* of the Academy.